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Classification of the Leafbeetles from Korea
Part I. Subfamily Hispinae (Coleoptera: Chrysomelidae)

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ABSTRACT

The present paper treats with 8 species belonging to 3 genera of the Hispinae from Korea, among them *Hispellinus moerens* (Baly, 1874) and *Dactylispa subquadrata* (Baly, 1874) are recorded here for the first time in Korea, and *Dactylispa koreanus* sp. nov. is described here.

INTRODUCTION

Recently the authors have worked on the taxonomy of Korean leafbeetles based on the collected material from throughout Korea. This is the first part treating hispid leafbeetles which are mostly leaf-mining pests in the larval stage. Rice hispid (*Dicladispa armigera* Oliver) has been caused severe damage to rice plant (*Oryza sativa* Linnaeus) from China, Burma, India, Nepal and S.E Asia but it has not found in Korea yet.

The present paper treats 8 species belonging to 3 genera, of these 2 species unrecorded hitherto from Korea and 1 species new to science are added respectively. Keys are provided to both genera and species. Also we have made an attempt to arrange all the reported domestic localities of each species together with further localities available. The host plants previously reported in Korea are included after examined and compared with the known records of other countries. All the morphological terms used herein are followed after S. Kimoto's (1982).

Type specimen and the other materials treated here will be deposited in the Systematic Entomology Laboratory, Department of Agricultural Biology, Kyungpook National University.

Subfamily HISPINAE 가시잎벌레 아과

Tribe HISPINI 가시잎벌레 족

Key to genera of Korean Hispini

1. At least first antennal segment with a long dorsal spine 2
   —. Antennae lacking spines entirely . . . . . ***Dactylispa***
2. A single claw at extremity of each tarsus . . . . . ***Hispellinus***
   —. Tarsal claws paired . . . . . ***Rhadinosa***

Genus 1. *Hispellinus* Weise, 1897 가시잎벌레 속

Hispellinus Weise, 1897, Deutsch. Ent. Zeitschr.: 144.
Type-species: Hispa multispinosa Gemar.
Type-locality: Australia.

Key to Korean species of *Hispellinus*

1. Prothoracic spines all nearly horizontally directed; marginal spines of elytra 18-26 in number . . . . . ***Hispellinus moerens***
   —. Prothoracic spines more or less obliquely raised, particularly the anterior ones; marginal spines of elytra 21-24 in number . . . . . ***Hispellinus chinensis***

1. *Hispellinus chinesis* Gressitt, 1950 참가시잎벌레

Monochirus callicanthus: Gressitt (nec Bates), 1939, Lingn. Sci. Journ. 18: 169 (part).
Hispellinus chinensis: Gresitt, 1950, Ibid. 23: 96, pl. 8(5).
Hispellinus chinensis: Takizawa, 1980, Nat. & Lif. 10(2): 12.①-③

Locality: Published records- Taegu ①, Palkong-san ②, Dongmeong ③.

Distribution: Korea, China (Hunan, Kwangtung, Szechuan).

2. *Hispellinus moerens* (Baly, 1874) 가시잎벌레

Hispa moerens Baly, 1874, Trans. Ent. Soc. Lond. 1874: 215.

Locality: new records- Andong, Kamch'ŏn Myŏn, Mt. P'algongsan, Taegu Tansan Myŏn, Mt. Kŭmjŏngsan, Is. Chindo, Yŏsu.

Distributtion: Korea (new record), Japan (Honshu, Shikoku, Kyushu), China (Taiwan), U.S.S.R. (Siberia).

Host: *Miscanthus* sp.

Genus 2. *Rhadinosa* Weise, 1905 김정가시잎 벌레 속

Rhadinosa Weise, 1905, Deutsch, Ent. Zeitschr. 318.
Type-species: *Hispa nigrocyanea* Motsch.
Type-locality: E. Asia.

3. ***Rhadinosa nigrocyanea*** (Motschulsky, 1860) 검정가시 잎벌레(가시잎벌레, 가시벌레)

Hispa nigro-cyanea Motschulsky, 1860, Schrenck's Reis. & Forsch. Am. -Land. 2: 237, pl. 11(26).
Hispa nigrocyanea: Haku, 1936, Journ. Chos. Nat. Hist. Soc. 21: 123 ①-②.
Rhadinosa nigrocyanea: Chujo, 1941, Trans. Nat. Hist. Soc. Form. 31(209): 233 ③-⑥.
Rhadinosa nigrocyanea: Cho, 1947, Bull. Zool. Sect. Nat. Sci. Mus. 2(3): 69 ⑦.
Rhadinosa nigrocyanea: Uhman, 1949, Kol. Zeitschr. 1: 6 (Korea).
Rhadinosa nigrocyanea: Cho, 1957, Hum. & Sci., Nat. Sci. Kor. Univ. 2: 248 (Korea).
Rhadinosa nigrocyanea: Chûjô et Kimoto, 1961, Pac. Ins. 3(1): 195 (Korea)
Rhadinosa nigrocyanea: Gressitt et Kimoto, 1963, Pac. Ins. Mon 1B: 919-920 (Korea).
Rhadinosa nigrocyanea: Nakane, 1963, Icon. Ins. Jap. Col. nat. ed. 2: 347, pl. 174(2). (Korea).
Rhadinosa nigrocyanea: Cho, 1965, Sci. & Techn. Nat. Sci. Kor. Univ. 6: 127 (Korea).
Rhadinosa nigrocyanea: Suda In Furukawa, et al., 1965, Col. Encyl. Ins.: 552 (Korea).
Rhadinosa nigrocyanea: Kimoto, 1966, Journ. Fac. Agr. Kyush. Univ. 13(4): 639-640 (Korea).
Rhadinosa nigrocyanca (sic): Zool. Soc. Kor., 1968, Nom. An. Kor. 2: 120 (Korea).
Rhadinosa nigrocyanea: Cho, 1969, I11. Encycl. Faun. & Flor. Kor. 10: 388 (N.C. Korea).
Rhadinosa nigrocyanea: Jolivet, 1973, Cah. Pac. 17: 274 (Corée).
Rhadinosa nigrocyanea: Kim et al., 1976, Rep. Kor. Ass. Cons. Nat. 9: 104 ⑧.
Rhadinosa nigrocyanea. Ed. Dept. Hok. 1979, I11. Ins. Jap. Stud. ed.: 435 (Korea).
Rhadinosa nigrocyanea: Takizawa, 1980, Nat. & Lif. 10(2): 12 ⑨.
Rhadinosa nigrocyanea: Kimoto, 1984, Col. Jap. Col. 4: 220, pl. 43(3) (Korea).

Locality: Publised records- Taegu ① (Taikyu) ③, Ch'ilgok Gŭn ②, Mt. Kon-gŏ-Zan ④ (Mt. Diamond ⑦), Kaizyo ⑤, Kisen ⑥, Mt. Chi-ak san ⑧, Mt. Palkong-san ⑨; new records- Mt. Kŭmosan, Mt. Sobaeksan, Mt. Sudosan, Tansan Myŏn, Mt. Ch'ŏnmasan, Mt. Ch'ŏnhwangsan, Mt. Kayasan, Samnan Myŏn, Mt. Kŭmjŏngsan, Mt. Yŏngch'wisan, Mt. Sŏlaksan, Mt. Maysan.

Distribution: Korea, Japan, China (Anhwei, Chekiang, Fukien, Hainan, Kiangsi, Kwangtung, Manchuria, Sinkiang), U.S.S.R. (Siberia).

Host: *Digitaria glabra, Miscanthus* spp.

Genus 3. ***Dactylispa*** Weise, 1897 노란테가시잎벌레 속

Dactylispa Weise, 1897, Deutsch. Ent. Zeitschr.: 137.
Type-species: *Dactylispa andrewesi* Ws. syn. of *Hispa severinii* Gestro.
Type-locality: India.

Key to Korean species of *Dactylispa*

1. Side of elytra not very broadly expanded anteriorly and posteriorly 2
—. Side of elytra very broadly expanded anteriorly and psoteriorly, with a deep

emargination between; prothorax with 4 spines at side and a double or triple spine on side of anterior margin with the 1st spinule or minute; elytra tuberculate . . . . . ***Dactylispa excisa***

2. Each side of prothorax with 3 spines 3
   —. Each side of prothorax with 5 spines; elytra oblong and broadened posteriorly, margin moderately expanded as long as major spines alternating with minor ones; apical marginal spines 1.5 times as long as broad . . . . . ***Dactylispa koreanus. sp. nov***
3. Elytral margin broadly expanded anteriory and posteriorly, marginal spines broad and flattened, triangular; spines on anterior convexilies of elytral margin no longer than broad, triangular . . . . . ***Dactylispa subquadrata***
   —. Elytral margin subparallel-sided; spines on lateral margin of elytra more or less equal in length, ten or more in number; epical spines equal and regular 4
4. Small in size; spines of lateral margin of elytra subuniform; dorsum largely pitchy; abdomen entirely black; length 3.1-4.2mm . . . . . ***Dactylispa angulosa***
   —. Large in size; spines of lateral margin of elytra irregular in length; color ochraceous; abdomen black with lateral portion brownish; length 5.0-5.2mm . . ***Dactylispa masonii***

4. *Dactylispa angulosa* (Solsky, 1871) 노란테가시잎 벌레(노란테가시 벌레)

Hispa angulosa Solsky, 1871, Hor. Soc. Ent. Ross. 8: 262.
Hispa japonica: Baly, 1874, Trans. Ent. Soc. Lond. 215.
Dactylispa angulosa: Doi, 1927, Dob. Zassh. 39(466): 334 ①, ②.
Dactylispa angulosa: Haku, 1936, Journ. Chos. Nat. Hist. Soc. 21: 123 ③.
Dactylispa angulosa: Mochizuki et Tsunekawa, 1937, Journ. Chos. Nat. Hist. Soc. 22: 85 ④.
Dactylispa angulosa: Doi. 1938, Mushi 11(1): 96 ⑤.
Dactylispa angulosa: Chûjô, 1941, Trans. Nat. Hist. Soc. Form. 31(209): 232 ⑥-⑭.
Dactylispa angulosa: Ohane et al. 1941, Sci. Rep. Keit. 6: 26 (Korea).
Dactylispa angulosa: Doi. 1947, Bull. Zool. Sect. Nat. Sci. Mus. 2(3): 68 ⑮.
Dactylispa angulosa: Uhmann, 1949, Kol. Zeitschr. 1: 8 (Korea).
Dactylispa angulosa: Gressitt, 1950, Icon. Jap. ed. ref. 2: 1208, f. 3475 (Korea).
Dactylispa angulosa: Gotô, 1956, In Nakane, at al.: Col. I11. Ins. Jap. Col.: 68, pl. 20 (Korea).
Dactylispa angulosa: Cho, 1957, Hum, & Sci., Nat. Sci. Kor. Univ. 2: 248 (Korea).
Dactylispa angulosa: Chûjô et Kimoto, 1961, Pac. Ins. 3(1): 193 (Korea).
Dactylispa angulosa: Gressitt et Kimoto, 1963, Pac. Ins. Mon. 1B: 924-925 (Korea).
Dactylispa angulosa: Nakane, 1963, Icon. Ins. Jap. Col. nat. ed. 2: 347, pl. 174(3) (Korea).
Dactylispa angulosa: Cho. 1965, Sci. Techn. Nat. Sci. Kor. Univ. 6: 127 (Korea).
Dactylispa angulosa: Kimoto, 1966, Journ. Fac. Agr. Kyush. Univ. 13(4): 647 (Korea).
Dactylispa angulosa: Zool. Soc. Kor. 1968, Nom. An. Kor. 2: 120 (Korea).
Dactylispa angulosa: Cho. 1969, I11. Encycl. Faun. & Flor. Kor. 10: 388, pl. 74(25) (N.C. Korea).
Dactylispa angulosa: Hyun et Woo, 1970, Bull. Seoul Nat. Univ. For. 7: 79 ⑯.
Dactylispa angulosa: Jolievet, 1973, Cah. Pac. 17: 274 (Coree).
Dactylispa angulosa: Kim et Kim, 1973, Rep. Kor. Ass. Cons. Nat. 5: 80 ⑰.

Dactylispa angulosa: Takizawa, 1980, Nat. & Lif. 10(2): 12 ⑱-㉑.
Dactylispa angulosa: Kimoto, 1984, Col. Jap. Col. 4: 219, pl. 42(24) (Korea).

Locality: Published records- Wŏnsan ① (Kenzan ⑥), Seoul ② (Keizyô ⑦, ⑪), Mt. P'algongsan ③ (Mt. Hakkô-Zan ⑧, Palkong-san ⑲), Mt. Soyosan ④ (Mt. Syôyô-Zan ⑨, ⑫), Gaima- Plateau ⑤, Mt. Kongô-Zan ⑩, Gorei ⑬, Mt. Myôkô-Zan ⑭, Mt. Diamond ⑮, Mt. Jiri ⑯, Gucheondong ⑰, Kumi nr Taegu ⑱, Dongmeong ⑳; new records- Mt. Wŏlaksan, Mt. Songnisan, Mt. Kyeryongsan, Mt. Chuwangsan, Mt. Hwanghaksan, Kamch'ŏn Myŏn, Mt. Naeyŏnsan. Mt. Sambangsan, Mt. Sobaeksan, Mt. Sudosan, Mt. Ch'ŏnmasan, Kwangnŭng, Mt. Myŏngjisan, Mt. Myŏngsŏnsan, Wolsanni, Mt. Kayasan, Masan, Mt. Wŏnhyosan, Mt. Yŏngch'wisan, Mt. Ch'iaksan, Mt. Obongsan, Mt. Odaesan, Mt. Sŏlaksan, Mt. Maysan, Mt. Naejangsan, Mt. Tŏgyusan, Jungmun, Is. Chindo, Mokp'o, Mt. Tuyrunsan, Is. Wando.

Distribution: Korea, Japan, China (Anhwei, Cheking, Hopei, Kiangsu, Kweichow, Manchuria, Shensi, Szechuan), U.S.S.R. (Siberia).

Host: *Filipendula multijuga* Maxim., *F. palmata* (Pallas), *Isodon inflexus* (Thumb.) Kudo, *Malus pumila* Mill., *Prunella vulgaris* L. var. *lilacina* Nakai, *Prunus* sp., *Quercus acutissima* Carr., *Q. myrsinaefolia* Bl., *Rosa* sp.

5. *Dactylispa excisa* (Kraatz, 1879) 안장노란테 가시잎벌레(안장가시잎벌레, 안장가시벌레)

Hipa excisa Kraatz, 1879, Deutsch. Ent. Zeitschr. 23: 140, pl. 2(10).
Dactylispa excisa var. *repanda* Weise, 1922, Phil. Jour. Sci. 21: 81.
Dactylispa excisa: Chûjô, 1941, Trans. Nat. Hist. Soc. Form. 31(209): 232 ①.
Dactylispa excisa: Cho, 1957, Hum. & Nat., Sci. Kor Univ. 2: 248 (Korea).
Dactylispa excisa: Gressitt et Kimoto, 1963, Pac. Ins. Mon. 1B: 927, p. 256(b) (Korea).
Dactylispa excisa: Cho. 1965, Sci. Techn. Nat. Sci. Kor. Univ. 6: 127 (Korea).
Dactylispa excisa: Zool. Soc. Kor., 1968, Nom. An. Kor. 2: 120 (Korea).
Dactylispa excisa: Cho. 1969, I11. Encycl. Faun. & Flor. Kor. 10: 404 (C. Korea).
Dactylispa excisa: Jolivet, 1973, Cah. Pac. 17: 274 (Coree).
Dactylispa excissa (sic): Takizawa, 1980, Nat. & Lif. 10(2): 12 ②.

Locality: Published records- Kôryô ①, Palkong-san ②; new records- Mt. Sudosan, Mt. Myŏngjisan, Mt. Kajisan.

Distribution: Korea, China (Anhwei, Chekiang, Fukien, Hupeh, Kiangisi, Kirin, Kweichow, Shensi, Szechuan, Taiwan).

6. *Dactylispa koreanus* sp. nov. 우리노란테가시 잎벌레

Description: General coloration raddish brown; head black; antnnal insertion and posterior portions of periorbital grooves yellowsh brown; antenna with 2 basal segments fuscous brown and 5 apical ones brown, remainder yellowish brown; scutellum pitch black ventral surface black with sides of abodomen and apical margins of sterna broodly yellowish brown; legs yellowish brown with very minute pubescence; prothorax with spines yellowish brown, of which the apics are black; elytra reddish brown with tubercles pitch black; explanate margins

brighter than disc.

Head as broad as prothorax at apex; vertex rugose with a distinct median groove, and each side slightly raised; frons rugose and triangularly elavated; frontoclypeus widest mesally, moderately convex.

Antenna about ½ as long as body, thickly pubscent; 1st segment robust, broadest and longest of all; 2nd half as long as 1st; 3rd nearly as long as 1st; 4th to 6th decreasing slightly in length; 7th as long as 4th, slightly stouter than 4 precedings; 8th shouter than 7th; 9th and 10th subequal in shape, each almost as long as broad; 11th as long as 6th, stoutest near middle.

Prothorax somewhat raised anteriorly with a strong suberect breaching spines on each side, fine transversely rugose between the spines; 5 long spines produced from roundly expanded lateral margins; 1st, 2nd and 3rd stouter and longer than 4 and 5th, posteriorly sinuate, 2nd slightly stouter than 1st, 3rd slightly stouter than 2nd, 5th slightly shorter than 4th but stouter, 4 and 5th straight in general; disc heavily and closely punctured except for a smooth transversely raised area at center.

Scutellum slightly broader than length, roundly truncated apically, abruptly declined at each basal side.

Elytron 1.3 times longer than maximum width; posteriorly widened and broadest at apex; disc rugose with large punctures arranged rather regularly in longitudinal row except for on a series of discal tubercles; interstics elavated and shining; 1st (scutellar) in terstice with 4 short oblique spines near scutellum; 2nd with a small tubercle behind middle; 3rd with a row of small tubercle behind scutellar spines, 2 large conical ones, each on before and behind middle, and another moderate on before apical margin; 5th with a row of small ones, and a large one just behind 3rd large one of 3rd interstices; 7th produced laterally at humerus with 9 moderate denticulations, with a small tubercle before middle and another large one at apical 2/9; 10th with a row of small ones and 2 large ones, one behind middle and the other near apical 1/9; lateral margin with 11 major and 11 minor spines alternately, expanded moderatly, subequal in length and flattened; apical margin with a few spinules between either 9 spines, expanded as much as lateral margin.

Underside with metathorax strongly swollen and sparsely punctures; sterna transversely strong grooved at anterior.

Legs fairly short with femora rather weakly swollen.

Length: 5.5mm; breadth 3.4mm excluding spines.

Host: Unknown.

Type-examined: Holotype female Mt. Ch'iaksan, Kwangwon Prov. C. Korea, 22, V. 1982, Coli. Y. J. Kwon.

Remark: This species somewhat resembles *marginicollis* Gressitt from S. China, but is easily distinguished from the latter by elytra which are not straight but widened posteriorly in shape, and by explanate margins which are moderately expanded and by marginal spines which are relatively short, flattened basally and major spines alternating with minor ones.

7. *Dactylispa masonii* Gestro, 1923 큰노란테가시잎벌레

Dactylispa Masonii Gestro, 1923, Mus. Civ. Gen. Ann. 51: 9.
Dactylispa ussurina Uhman, 1928, Col. Centr. Bl. 3: 35.
Dactylispa flavomarginata: Shirozu, 1957, Sieboldia 2: 53, pl. 6(2).

Dactylispa masonii: Kimoto et Kawase, 1966, Esakia 5: 47 ①.
Dactylispa masonii: Jolivet, 1974, Kor. Jour. Ent. 4(2): 98 (Korea).
Dactylispa masonii: Kimoto, 1984, Col. Jap. Col. 4: 219, pl. 42(25) (Korea).

Locality: Published records- Unggi① ; new records- Mt. Ch'ŏnmasan, Mt. Myŏngjisan, Mt. Myŏngsŏngsan, Mt. Yongmunsan, Samnam Myŏn, Mt. Obonsan.

Distribution: Korea, Japan (Hokkaido, Honshu, Kyushu, Shikoku, Tsushima), China (Chekiang, Fukien, Manchuria), U.S.S.R. (Siberia).

Host: *Compositae* spp., *Petasites japonicus* (S. & Z.) Maxim.

8. ***Dactylispa subquadrata*** **(Baly, 1874)** 사각노란테가시잎벌레

Hispa subquadrata Baly, 1874, Trans. Ent. Soc. Lond. 216.
Dactylispa adstricta Weise, 1922, Phil. Journ. Sci. 21: 81.

Locality: new records- Kwangnŭng, Mt. Unmunsan, Mt. Yŏngch'wisan.

Distribution: Korea (new record), Japan, China (Kingsu).

Host: *Castanea crenata* S. & Z. *Castanopis cuspidata* (Th.) Schot., *Quercus acutissima* Carr., *Q. glauca, Q. mongolica* Fish. var. *grossescrrata* Rehd. & Wils., *Q. serrata* Th., *Q. variabilis* Bl.

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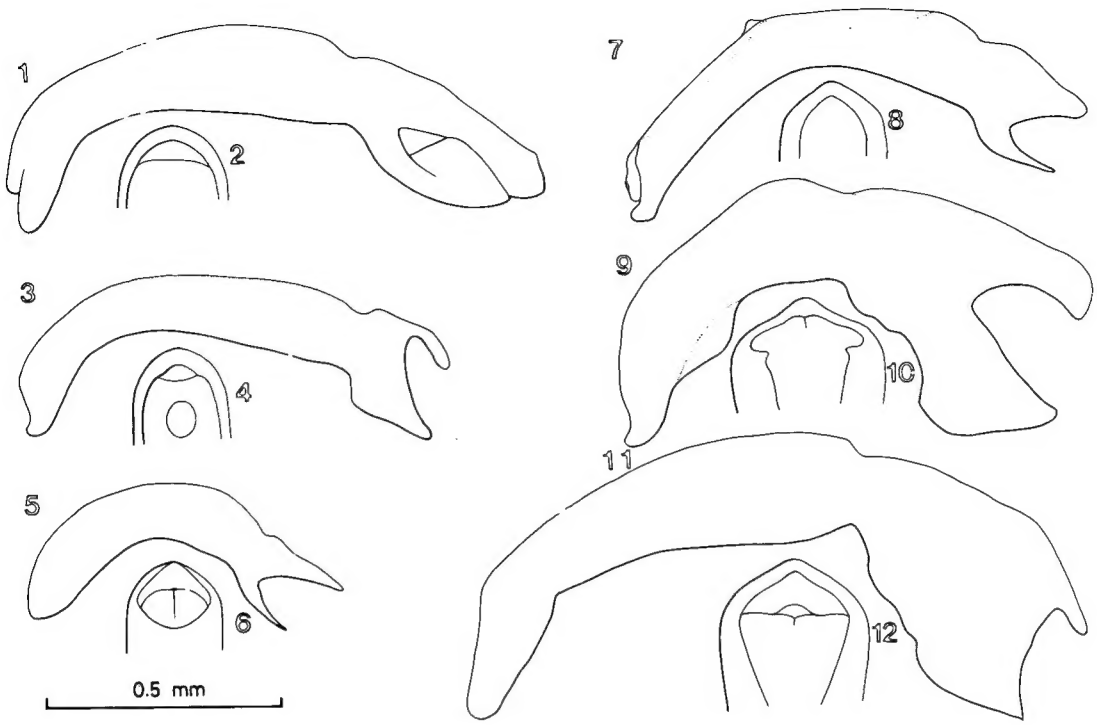

Plate I. Male aedeagal characters of hispid.

1,2. *Hispellinus moernens;* 1,3,5,7,9,11: aedeagal shafts in lateral view. 3,4. *Rhadinosa nigrocyanea;* 2,4,6,8,10,12: apices of aedeagal in dorsal view. 5,6. *Dactylispa angulosa;* 7,8. *D. excisa;* 9,10. *D. masonii;* 11,12. *D. subquadsata.*

* Classification of the Leafbeetles from Korea Seung Lak AN, Yong Jung KWON and Seung-Mo LEE.